WHAT IS CLAIMED IS:

1. A combination in an aircraft comprising:

a valve having a rotatable adjusting shaft, by rotation of which said valve is adjustable selectively between an open end position and a closed end position; and

an operating mechanism including a toothed gear element and a toothed rack cooperating with said toothed gear element;

wherein said toothed gear element includes gear teeth, is rotatable, and is mechanically connected to said adjusting shaft of said valve so as to transmit a rotating motion of said toothed gear element to said adjusting shaft; and

wherein said toothed rack includes rack teeth engaging said gear teeth so as to convert and transmit a linear motion of said toothed rack to said rotating motion of said toothed gear element.

2. The combination according to claim 1, wherein said toothed gear element is mechanically connected directly rigidly to said adjusting shaft of said valve, and wherein said toothed gear element and said adjusting shaft share a single common rotation axis.

3. The combination according to claim 1, wherein said valve is a valve of a drinking water supply system of said aircraft which is a passenger transport aircraft.

4. The combination according to claim 1, wherein said operating mechanism further includes a push-pull cable device comprising an inner push-pull cable slidably arranged in an outer sheath, wherein said inner push-pull cable is connected to said toothed rack so that said toothed rack and said inner push-pull cable both undergo said linear motion together.

5. The combination according to claim 1, wherein said operating mechanism further includes a counter pressure roller that is rotatably arranged on a side of said toothed rack opposite said toothed gear element and applies pressure to said toothed rack toward said toothed gear element so as to hold said rack teeth in positive engagement with said gear teeth.

6. The combination according to claim 1, wherein said toothed gear element includes only a limited number of said gear teeth distributed over a limited angular gear range corresponding to one-half of a valve adjustment angular range of a maximum angular rotation of said adjusting shaft between said open end position and said closed end position of said valve.

7. The combination according to claim 6, wherein said toothed rack includes only a limited number of said rack teeth suitable for engagement with said limited number of said

gear teeth, distributed over a limited linear rack range corresponding to a circumferential developed length of said limited angular gear range of said toothed gear element.

8. The combination according to claim 7, wherein said toothed gear element further includes respective blank gear sections without gear teeth on opposite sides of and adjoining said limited angular gear range, said toothed rack further includes respective blank rack sections without rack teeth on opposite sides of and adjoining said limited linear rack range, and said blank gear sections allow said blank rack sections to disengage therefrom so that said linear motion of said toothed rack can continue disengaged from said rotating motion of said toothed gear element beyond respective points at which said adjusting shaft has been rotated to said open end position or said closed end position of said valve.

9. The combination according to claim 8, wherein said blank gear sections are respective recessed sections having a recessed floor at a depth of gear grooves provided between said gear teeth, and said blank rack sections are respective protruding sections having an un-grooved un-toothed protrusion surface at a height of said rack teeth.

10. The combination according to claim 8, wherein said toothed gear element further includes respective gear abutments on

opposite sides of and bounding said blank gear sections, said toothed rack further includes respective rack abutments on opposite sides of and bounding said blank rack sections, and said gear abutments and said rack abutments are configured, arranged and adapted respectively to contact one another to re-establish an engagement of said toothed rack with said toothed gear element when said toothed rack is moved back into a center partial range of said linear motion of said toothed rack corresponding to a maximum range of said rotating motion of said toothed gear element.

11. The combination according to claim 1, wherein said toothed rack includes only a limited number of said rack teeth distributed over a limited linear rack range suitable for achieving a limited angular range of said rotational motion limited between said closed end position and said open end position of said valve.

12. The combination according to claim 1, wherein said toothed rack and said toothed gear element are respectively configured and arranged so that said rotating motion of said toothed gear element is angularly limited to a limited angular range between said open end position and said closed end position of said valve, said rack teeth engage said gear teeth only over a limited linear range of said linear motion of said toothed rack corresponding to a circumferential developed length of said limited angular

range of said rotating motion of said toothed gear element, and said engaging of said rack teeth with said gear teeth can be reversibly interrupted as said linear motion of said toothed rack continues in either direction past said limited linear range.

13. The combination according to claim 12, wherein said toothed rack and said toothed gear element are configured and arranged so that a re-engagement of said rack teeth with said gear teeth is ensured once said toothed rack moves back into said limited linear range.

14. A combination comprising:

a valve having a rotatable adjusting shaft, by rotation of which said valve is adjustable selectively between an open end position and a closed end position; and

an operating mechanism including a toothed gear element and a toothed rack cooperating with said toothed gear element;

wherein said toothed gear element includes gear teeth, is rotatable, and is mechanically connected to said adjusting shaft of said valve so as to transmit a rotating motion of said toothed gear element to said adjusting shaft;

wherein said toothed rack includes rack teeth engaging said gear teeth so as to convert and transmit a linear motion of said toothed rack to said rotating motion of said toothed gear element;

wherein said toothed gear element includes only a limited number of said gear teeth distributed over a limited angular gear range;

wherein said toothed rack includes only a limited number of said rack teeth suitable for engagement with said limited number of said gear teeth, distributed over a limited linear rack range; and

wherein said toothed gear element further includes respective blank gear sections without gear teeth on opposite sides of and adjoining said limited angular gear range, said toothed rack further includes respective blank rack sections without rack teeth on opposite sides of and adjoining said limited linear rack range, and said blank gear sections allow said blank rack sections to disengage therefrom so that said linear motion of said toothed rack can continue disengaged from said rotating motion of said toothed gear element beyond respective points at which said adjusting shaft has been rotated to said open end position or said closed end position of said valve.

15. The combination according to claim 14, wherein said blank gear sections are respective recessed sections having a recessed floor at a depth of gear grooves provided between said gear teeth, and said blank rack sections are respective protruding sections having an un-grooved un-toothed protrusion surface at a height of said rack teeth.

16. The combination according to claim 14, wherein said toothed gear element further includes respective gear abutments on opposite sides of and bounding said blank gear sections, said toothed rack further includes respective rack abutments on opposite sides of and bounding said blank rack sections, and said gear abutments and said rack abutments are configured, arranged and adapted respectively to contact one another to re-establish an engagement of said toothed rack with said toothed gear element when said toothed rack is moved back into a center partial range of said linear motion of said toothed rack corresponding to a maximum range of said rotating motion of said toothed gear element.

17. A combination comprising:

a valve having a rotatable adjusting shaft, by rotation of which said valve is adjustable selectively between an open end position and a closed end position; and

an operating mechanism including a toothed gear element and a toothed rack cooperating with said toothed gear element;

wherein said toothed gear element includes gear teeth, is rotatable, and is mechanically connected to said adjusting shaft of said valve so as to transmit a rotating motion of said toothed gear element to said adjusting shaft;

wherein said toothed rack includes rack teeth engaging said gear teeth so as to convert and transmit a linear

motion of said toothed rack to said rotating motion of said toothed gear element; and

wherein said operating mechanism further includes means for selectively disengaging said toothed rack from said toothed gear element for allowing said linear motion of said toothed rack to continue disengaged from said rotating motion of said toothed gear element beyond respective angular stopping points of said toothed gear element corresponding to said open and closed end positions of said valve.